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COSTS and RETURNS



**Commercial
Dairy
Farms**

**Northeast and
Midwest**

1963

FARM COSTS STUDIES

This report is part of a continuing nationwide study of costs and returns on commercial farms and ranches by type and size in some of the important farming regions of the United States. The study is conducted under the general supervision of Wylie D. Goodsell, Farm Production Economics Division, Economic Research Service. Objectives, methodology, procedure, and terms are uniform for all areas covered in the study.

The 1963 costs and returns studies have been conducted on the following:

- Dairy Farms, Northeast and Midwest
- Corn Belt Farms
- Egg-Producing Farms, New Jersey
- Broiler Farms, Maine, Delmarva, and Georgia
- Cotton Farms
- Tobacco Farms, Coastal Plain, North Carolina
- Tobacco-Livestock Farms, Bluegrass Area, Kentucky
- Wheat Farms, Plains and Pacific Northwest
- Western Livestock Ranches

Summary statistics for all types of farms in the study are presented in a report, revised annually. The latest such report was published in 1963 and is titled: "Farm Costs and Returns, Commercial Farms, by Type, Size, and Location," Agriculture Information Bulletin No. 230, Revised, 1963.

Information on the studies can be obtained from Farm Production Economics Division, Economic Research Service, U.S. Department of Agriculture, Washington, D.C., 20250.

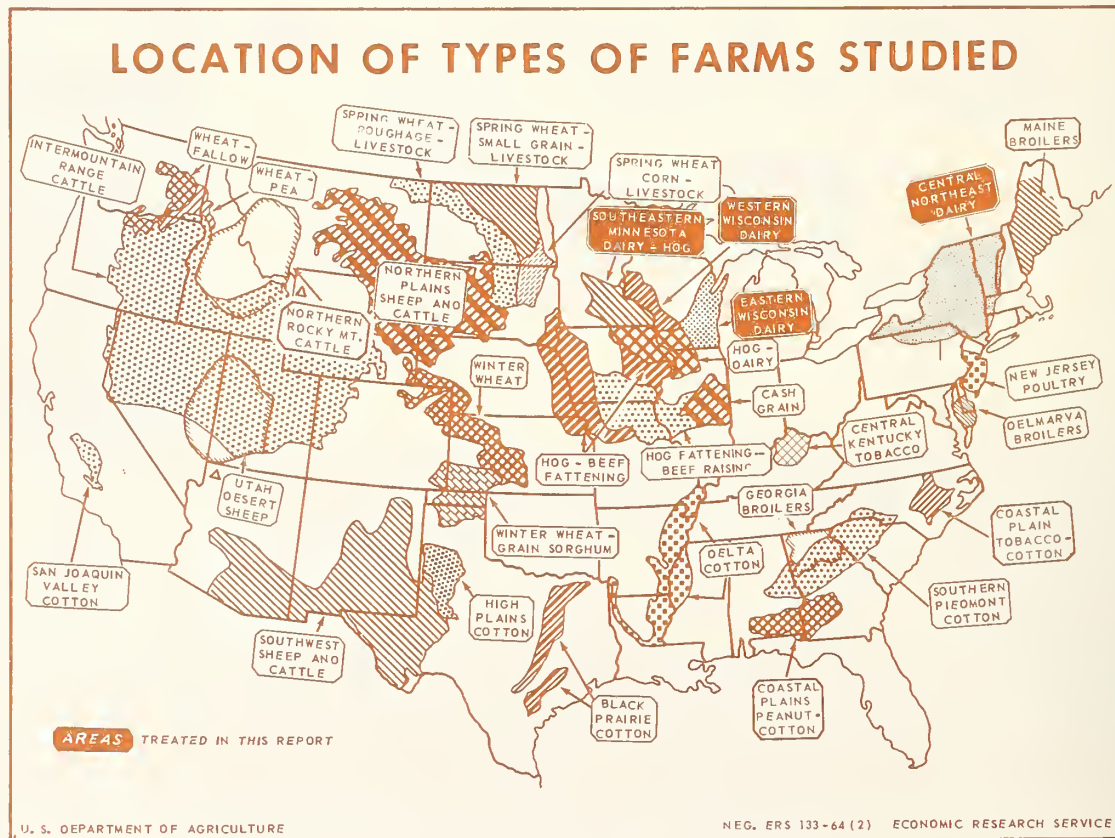


Figure 1

COSTS AND RETURNS COMMERCIAL DAIRY FARMS NORTHEAST AND MIDWEST, 1963

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INTRODUCTION

Net farm incomes in 1963 on typical dairy farms in the Central Northeast and Midwest ranged from 16 percent higher on Northeast dairy farms to 10 percent lower than in 1962 on eastern Wisconsin grade-A dairy farms (fig. 1 and 2). Farm production was higher on all 5 types of farms, primarily because of increased production of milk and grain. Grain yields averaged higher on all dairy farms, but hay yields were lower on Midwest dairy farms (table 1). Prices received in 1963 for products sold were unchanged to 3 percent lower. Prices paid for goods and services used in production continued their upward trends on all of these farms.

SPECIALIZED DAIRY AREAS

Central Northeast

Net farm income per dairy farm in the Central Northeast was \$4,068 in 1963, compared with \$3,492 in 1962. This increase was the result of greater net farm production, since prices received for products sold remained unchanged from 1962 to 1963. Cattle, calf, and poultry product prices declined slightly, whereas prices received for fluid milk averaged the same in both years. Approximately 98 percent of cash receipts on these farms is from the sale of milk (table 2).

Net farm production increased more than 4 percent in 1963, as crop yields were up more than 8 percent from a year earlier. In addition to increases of about 6 percent in both milk and grain production, total production of hay equivalents (hay and corn silage) increased 15

percent, largely because of a rise of about 19 percent in per acre hay yields in 1963. A 6-percent increase in the quantity of milk sold per farm accounted for the rise in total cash receipts.

Total cash expenditures rose \$764 per farm, mainly because of increased purchases of production items. Prices paid were only slightly higher than in the previous year. Total feed expense was \$557 higher, as livestock numbers and feeding rates continued to increase. Operating expense per unit of production continued upward in 1963, despite increased production.

Total value of capital investments on Central Northeast dairy farms was a record high of \$43,400 per farm on January 1, 1963, an increase of \$800 from a year earlier. The value of land and buildings rose \$1,000, primarily because of a 3-

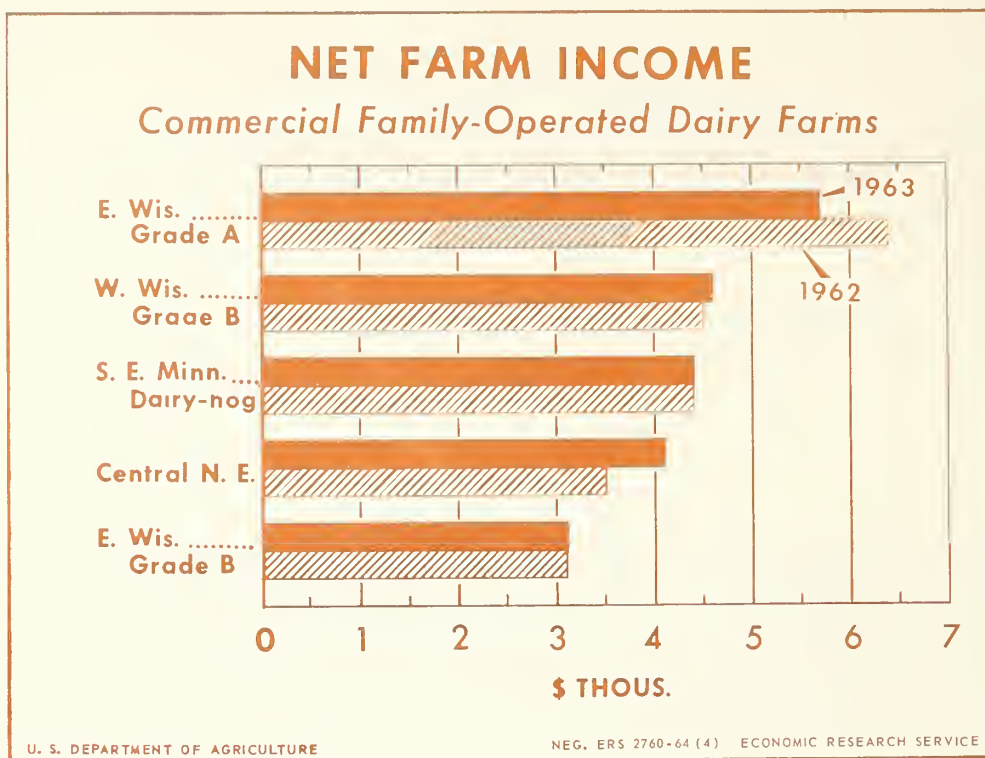


Figure 2

percent increase in the estimated per acre market value of land. Total value of livestock per farm dropped \$700 from January 1, 1962, because of lower values per head.

The marked increase in 1963 in net farm income resulted in a return per hour to farm operator and family labor of 42 cents, compared with 28 cents in 1962 and 66 cents in 1957-59.

Eastern Wisconsin, Grade-A

Net farm incomes in 1963 on grade-A dairy farms in eastern Wisconsin averaged \$5,725 per farm, nearly 10 percent lower than in 1962 and about 8 percent above the 1957-59 average. The decrease was due mostly to a reduction of 12 cents per hundredweight from 1962 in the average price received for fluid milk and lower prices re-

ceived for livestock. Milk production per cow and per farm were higher in 1963. Grain production was greater, but hay production was considerably lower because of a 21 percent drop in hay yields. Net farm production rose about 2 percent in 1963.

Prices paid for goods and services used in production continued to increase and were a record high in 1963. Both total cash expenditures and operating expense per unit of production increased more than 3 percent.

Total value of capital investments on these dairy farms reached a record level of \$67,680 per farm on January 1, 1963, rising \$940 from a year earlier. Capital invested in land and buildings remained about the same as in 1962, but investment in machinery and equipment and other assets increased.

Table 1.- Organization and production, commercial dairy farms, specified locations, 1962 and 1963

Item	Unit	Central Northeast dairy		Eastern Wisconsin dairy				Western Wisconsin dairy, Grade B		Southeastern Minnesota dairy-hog	
		1962		1963		1962		1963		1962	
		1962	1963	1962	1963	1962	1963	1962	1963	1962	1963
Land in farm.....	Acre	235	239	171	175	142	146	184	188	171	175
Cropland harvested.....	do.	86	88	115	119	84	88	88	90	104	107
Crops harvested:											
Corn for grain.....	do.	---	---	20.5	21.0	11.0	12.3	19.5	19.9	35.9	39.5
Corn for silage.....	do.	11.5	12.3	18.1	20.5	11.7	12.0	7.3	8.0	8.0	7.5
Small grains.....	do.	13.1	13.4	28.5	27.5	25.7	26.0	22.1	22.2	28.0	27.4
Hay.....	do.	61.0	62.3	41.7	43.0	34.6	36.0	38.1	39.3	32.4	32.9
Crop yields per harvested acre:											
Corn for grain.....	Bushel	---	---	71.4	76.3	64.0	68.4	67.8	70.2	60.2	68.7
Corn for silage.....	Ton	11.3	11.5	11.8	11.3	10.5	10.0	12.7	12.3	10.4	11.3
Oats.....	Bushel	50.0	52.0	60.8	61.7	56.2	57.0	52.7	53.0	49.5	52.4
Hay.....	Ton	1.6	1.9	3.3	2.6	2.6	2.1	3.3	3.0	3.2	3.0
Cattle on farm, Jan. 1:											
All cattle.....	Number	46.4	47.3	53.8	54.9	34.1	34.6	42.6	44.0	36.7	38.0
Cows and heifers, 2 years old and over.....	do.	31.4	32.2	31.7	32.0	21.4	21.6	22.7	23.8	21.3	21.9
Milk production per cow.....	Pound	8,620	8,910	10,150	10,210	8,670	8,690	8,340	8,370	8,450	8,460
Total farm capital, Jan. 1.....	Dollar	42,600	43,400	66,740	67,680	44,570	44,800	36,040	37,410	53,820	55,130
Land and buildings.....	do.	22,400	23,400	38,220	38,320	28,120	28,320	21,020	21,750	35,230	36,740
Machinery and equipment.....	do.	7,700	7,900	11,790	12,420	6,370	6,390	4,160	4,250	7,280	7,390
Livestock.....	do.	9,700	9,000	12,070	11,900	6,530	6,380	7,600	7,680	7,240	7,380
Crops.....	do.	2,800	3,100	4,660	5,040	3,550	3,710	3,260	3,730	4,070	4,220
Total labor used.....	Hour	4,590	4,590	4,580	4,630	3,790	3,800	4,240	4,320	4,190	4,200
Hired.....	do.	850	830	460	510	90	100	290	300	310	340

1/ Preliminary.

Table 2.- Receipts and expenditures, commercial dairy farms, specified locations, 1962 and 1963

Item	Central Northeast dairy		Eastern Wisconsin dairy		Wisconsin dairy, Grade B		Southeastern Minnesota dairy-hog	
	1962	1963 1/	1962	1963 1/	1962	1963 1/	1962	1963 1/
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Total cash receipts.....	12,599	13,180	13,924	13,675	7,762	7,672	8,205	8,582
Dairy products.....	10,942	11,563	10,373	10,349	5,253	5,386	5,362	5,659
Cattle and calves.....	1,377	1,352	2,263	2,099	1,197	1,154	1,478	1,484
Hogs.....	---	---	954	877	750	674	649	724
Poultry and eggs.....	191	184	---	---	290	237	253	206
Crops.....	---	---	189	233	210	151	361	404
Other, including Government payments.....	89	81	145	117	62	70	102	105
Value of perquisites.....	939	954	1,117	1,104	1,027	1,025	840	843
Change in inventory of crops and livestock.....	-409	341	694	768	294	550	781	842
Gross farm income.....	13,129	14,475	15,735	15,547	9,083	9,247	9,826	10,267
Total cash expenditures.....	9,944	10,708	10,167	10,522	5,917	6,087	5,426	5,677
Feed purchased.....	3,354	3,911	1,162	1,256	755	775	738	787
Livestock expense.....	618	607	672	703	478	489	410	432
Fertilizer and lime.....	438	444	386	395	238	245	270	275
Other crop expense.....	327	367	568	618	442	491	435	488
Machinery.....	2,927	3,019	3,917	4,024	2,238	2,275	2,035	2,093
Farm buildings and fences.....	537	558	1,439	1,398	637	616	457	443
Labor hired.....	765	774	463	529	93	99	272	294
Taxes.....	731	772	1,231	1,257	771	821	611	660
Other.....	247	256	329	342	265	276	198	205
Inventory adjustment, machinery and buildings..	-307	-301	-783	-700	29	32	-67	-50
Total operating expenses.....	9,637	10,407	9,384	9,822	5,946	6,119	5,359	5,627

1/ Preliminary.

The 10 percent lower netfarm income, coupled with a slight increase in the capital charge, reduced the return per hour to operator and family labor to 49 cents in 1963 from 65 cents in 1962. The 1963 return per hour to labor was about 30 percent below the corresponding return in 1957-59.

Eastern Wisconsin, Grade-B

Net farm incomes on grade-B dairy farms in eastern Wisconsin averaged \$3,128 per farm in 1963, about the same as in 1962 (table 3), and about 23 percent above the 1957-59 average. A slight increase in the average price received for manufacturing milk, accompanied by a 2-percent increase in the quantity of milk sold per farm, prevented a substantial reduction in total cash receipts and net farm income in 1963. Receipts from cattle, calves, and hogs were lower in 1963 primarily because of lower livestock prices.

Net farm production increased about 2 percent, even though crop yields averaged more than 5 percent lower than in the previous year. Grain yields were higher in 1963 but hay yields were substantially lower. Increases in milk and grain production more than offset a 13-percent decrease from 1962 in roughage production.

Total cash expenditures were up in 1963, primarily because of higher prices paid for goods and services used in production. Crop production expenses and taxes increased most.

Total value of capital invested per farm as of January 1, 1963, increased slightly from a year earlier to a record high of \$44,800. Livestock was the only investment

category that decreased in value from January 1, 1962. This was due to lower livestock prices in 1963.

Western Wisconsin, Grade-B

Net income per farm in 1963 on grade-B farms in western Wisconsin was estimated to be \$4,640. This is an increase of nearly 4 percent from 1962 and about 37 percent above the average for 1957-59. Prices received in 1963 averaged slightly below a year earlier. Milk and corn prices were higher, but prices received for most other farm products, particularly hogs, were lower. Total cash receipts per farm were higher, primarily because of increased marketings of milk and livestock.

Net farm production increased 4 percent in 1963, even though crop yields averaged 3 percent lower. Increases in milk and grain production were largely responsible for this rise. Milk production per cow and per acre yields of grain were both higher in 1963. Production of roughage dropped, primarily because hay yields averaged 9 percent lower than the record-high yields in 1962.

Total cash expenditures in 1963 were up about 5 percent, primarily because of increased purchases of production inputs. Prices paid for these inputs increased only slightly. Total feed expense was up about 7 percent, and expenditures for machinery, crop production items, and taxes increased about 5 percent.

Total value of capital invested per farm on these grade-B farms was a record high, \$37,410 on January 1, 1963, an increase of \$1,370 from a year earlier. Increases in the value of land and buildings accounted for nearly all of this rise.

Table 3.- Income and related data, commercial dairy farms, specified locations, 1962 and 1963

Item	Central Northeast dairy		Eastern Wisconsin dairy		Western Wisconsin dairy, Grade B		Southeastern Minnesota dairy-hog	
	Grade A		Grade B					
	1962	1963 1/	1962	1963 1/	1962	1963 1/	1962	1963 1/
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Net farm income.....	3,492	4,068	6,351	5,725	3,137	3,128	4,467	4,432
Charge for capital at current interest rates 2/.....	2,450	2,496	3,670	3,722	2,451	2,464	1,982	2,058
Return to operator and family labor.....	1,042	1,572	2,681	2,003	686	664	2,485	2,582
Return per hour.....	.28	.42	.65	.49	.19	.18	.63	.64
Charge for capital at 4.1 percent interest 3/.....	1,747	1,779	2,736	2,775	1,827	1,837	1,478	1,534
Return to operator and family labor.....	1,745	2,289	3,615	2,950	1,310	1,291	2,989	3,106
Return per hour.....	.47	.61	.88	.72	.35	.35	.76	.77
Index numbers (1957-59=100)								
Net farm production.....	114	119	120	122	117	119	124	129
Total milk production.....	131	138	125	129	121	123	122	128
Crop yields per acre.....	97	105	111	106	112	106	117	114
Total cost per unit of production.....	107	107	102	104	100	101	94	96
Prices received for products sold.....	95	95	101	98	102	102	101	100
Prices paid, including wages to hired labor.....	104	105	108	110	108	110	108	109

1/ Preliminary. 2/ Represents the current interest rate in effect on Jan. 1, for new loans by the Federal Land Banks in the farmers' respective areas. 3/ Represents the average rate paid by farmers on outstanding debts held by the Federal Land Banks in the United States from 1940 to 1960.

Note: Information presented here is on an owner-operator basis primarily for comparability between types of farms. Net farm income is the return to operator and unpaid members of the family for their labor and management on the farm and return to total capital. No allowance has been made for payment of rent, interest, or mortgage.

The return per hour to farm operator and family labor and management in 1963 was 64 cents, compared with 63 cents in 1962 and 52 cents in 1957-59.

Southeastern Minnesota, Dairy-Hog

Net farm incomes in 1963 on dairy-hog farms in southeastern Minnesota averaged \$4,358 per farm. This was a slight decrease from 1962 and about 10 percent higher than in 1957-59. Prices received for manufacturing grade milk and for cattle, calves, and hogs averaged slightly lower than in 1962. Hog and calf prices decreased \$1.40 and \$1.30 per hundredweight, respectively.

Net farm production rose about 7 percent in 1963, mostly because per acre crop yields increased about 7 percent from a year earlier. Milk production increased slightly and grain production increased about 20 percent, primarily because of slight increases both in cows milked and

milk production per cow and an increase of 14 percent in corn yields. Hay yields were lower, causing a slight reduction from 1962 in total roughage production.

Total cash expenditures increased in 1963, mainly because of higher prices paid for inputs. However, operating expense per unit of production dropped nearly 3 percent. This was caused by a substantial increase in net farm production.

Total value of capital investments on these dairy-hog farms reached a record high, \$55,730 per farm on January 1, 1963, an increase of \$1,910 from a year earlier. Increased value of land and buildings accounted for 79 percent of this increase.

The combined net effect of a greater labor input, a lower net farm income, and a higher capital charge in 1963 resulted in an average return of 33 cents per hour to farm operator and family labor. This compares with returns of 38 cents in 1962 and 47 cents in 1957-59.

AREAS IN AGGREGATE ¹

In the aggregate, dairy farms in these two major milk production areas continued to increase in size in 1963 (2 percent), as smaller producers ceased operating and

their farms were absorbed by the remaining producers. An average of 94 acres of cropland was harvested per farm in 1963, a 2-acre increase from 1962. Harvested

¹ To describe the organizational and financial changes from year-to-year on these dairy farms as a group, a system of weights was constructed, using 1959 U.S. Census of Agriculture data. The weights were based on the number of commercial dairy farms in each of the areas represented by each of the five typical dairy farms. These typical commercial dairy farms fall into census economic classes I-IV, which define a minimum total value of farm product sales of \$5,000 per farm. The upper limit on the value of sales per farm is not specified. Economic classes I-IV include about 76 percent of all of the commercial dairy farms in each of the five areas represented. The number of dairy farms has decreased since 1959, but it is assumed that the decrease has been proportional, exerting little effect on the weights assigned. The weights are: Central Northeast, 39.0; eastern Wisconsin grade-B, 19.0; southeastern Minnesota dairy-hog, 17.0; western Wisconsin grade-B, 16.0; and eastern Wisconsin grade-A, 9.0.

acreage in grain and in forage (hay and corn silage) increased 3 percent. Total animal units (A.U.'s) per farm increased slightly from 1962, and the ratio of cropland acres harvested per A.U. remained at about 2.35.

Net farm income per farm rose from \$4,000 in 1962 to \$4,184 (table 4), and was about 8 percent higher than in 1957-59. Prices received for farm products averaged slightly below a year earlier, and the ratio between prices received and prices paid continued to decrease from 93 in 1962 to 92. The weighted average price received in 1963 for both fluid and manufacturing milk was about the same as a year earlier, but livestock prices declined. Beef cattle, calf, and hog prices dropped 63 cents, 76 cents, and \$1.39 per hundredweight, respectively. Crop and poultry product prices were about the same to higher. Total cash receipts per farm increased slightly in 1963, despite lower average prices. The quantity of milk sold increased.

Net farm production increased more than 3 percent in 1963, and was 21 percent above the 1957-59 average. A greater number of cows milked in 1963 and an increase of 150 pounds in milk production per cow resulted in an increase from 1962 of 4 percent in milk production per farm. Milk production per farm in 1963 was 31 percent greater than in 1957-59. Crop yields generally

were above those in 1962. Yields of the principal grain crops (corn and oats) were higher in 1963, contributing to an increase of nearly 11 percent in total grain production per farm. Production of roughage per farm increased slightly, despite generally lower hay and silage yields.

Total cash expenditures per farm increased, primarily because of greater quantities of inputs purchased. Prices paid for goods and services used in production averaged slightly higher in 1963. Expenditures for major items--feed, farm machinery, buildings, and taxes--were up nearly 6 percent. Operating expense per unit of production crept upward in 1963, despite considerable increases in milk and grain production. However, physical production efficiency (production per unit of input measured with production and cost at constant prices, 1957-59=100) increased 2 percent from 1962, and was a record high.

Total value of capital investments per farm as of January 1, 1963, averaged \$46,940 compared with \$45,960 in the previous year and \$37,470 in 1957-59. Increased value of land and buildings accounted for about 83 percent of the increase from 1962.

Return per hour to farm operator and family labor increased from 37 cents in 1962 to 41 cents in 1963. The 1963 return per hour was 11 cents below the 1957-59 average.

Table 4.- Organization, production, income, and related data, five commercial dairy farms, in the aggregate, 1962 and 1963

Item	Unit	1962	1963 1/	Item	Unit	1962	1963 1/
Land in farm.....	Acre	193	197	Total cash receipts.....	Dollar	10,669	10,886
Cropland harvested.....	do.	92	94	Value of perquisites.....	do.	928	934
Corn for grain.....	do.	13.1	14.1	Change in inventory of crops and livestock.....	do.	14	56
Corn for silage.....	do.	10.9	11.5	Gross farm income.....	do.	11,739	12,381
Small grains.....	do.	20.8	20.8	Total cash expenditures.....	do.	7,980	8,419
Hay.....	do.	45.8	47.0	Inventory adjustment, machinery and buildings.....	do.	-241	-222
Crop yields per harvested acre:				Total operating expenses.....	do.	7,739	8,197
Corn for grain.....	Bushel	64.2	69.8	Net cash farm income.....	do.	2,689	2,471
Corn for silage.....	Ton	11.2	11.2	Net farm income.....	do.	4,000	4,186
Oats.....	Bushel	53.1	54.6	Charge for capital 2/.....	do.	2,569	2,525
Hay.....	Ton	2.34	2.27	Return to operator and family labor.....	do.	1,431	1,559
All cattle on farm, Jan. 1.....	Number	42.5	43.5	Return per hour.....	do.	.37	.41
Cows and heifers, 2 years old and over.....	do.	26.5	27.1	Index numbers (1957-59=100):			
Average number of cows milked.....	do.	25.2	25.7	Net farm production.....	---	117	121
Milk production per cow.....	Pound	8,720	8,870	Total milk production.....	---	126	131
Total farm capital, Jan. 1.....	Dollar	45,960	46,940	Crop yields per acre.....	---	106	108
Land and buildings.....	do.	26,820	27,630	Total cost per unit of production.....	---	103	103
Machinery and equipment.....	do.	7,170	7,340	Prices received for products sold.....	---	99	98
Livestock.....	do.	8,570	8,290	Prices paid, including wages to hired labor.....	---	100	107
Crops.....	do.	3,400	3,680				
Total labor used.....	Hour	4,320	4,340				
Hired.....	do.	490	500				

1/ Preliminary. 2/ Represents the current interest rate in effect on Jan. 1, for new loans by the Federal Land Banks in the farm area.

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